

# Editors - General Information

This section gives an overview of which Natural objects are edited with which Natural editor. In addition, it contains information on Natural object names, split-screen mode and the editor profile.

You invoke a Natural editor with the system command EDIT as described in the Natural Command Reference documentation.

Which editor is invoked depends on the type of object you wish to edit:

- Programs, subprograms, subroutines, help routines, copycode and text are created and edited in the program editor.
- Global data areas, local data areas and parameter data areas are created and edited in the data area editor.
- Maps and help maps are created and edited in the map editor.
- Predict descriptions are edited in the Predict description editor (see the Predict documentation).

An online help system is provided with each editor.

Tutorials which introduce you to the main features of the editors are provided under Tutorial - Getting Started with Natural and Tutorial - Using the Map Editor.

In addition to the Natural editors, the Software AG Editor is provided as an optional feature, which is exclusively used by several Natural subproducts and other Software AG products (for further information, see the relevant section in the Natural Installation Guide for Mainframes and the Software AG Editor documentation).

**Note:**

If you wish to use the Software AG Editor as an alternative to the Natural program editor, Natural ISPF must be installed.

This section covers the following topics:

- Object Names
  - Split-Screen Mode
  - Editor Profile
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## Object Names

The name of a Natural object can be 1 to 8 characters long. It can consist of the following characters:

Character	Explanation
A - Z	upper-case alphabetical characters
0 - 9	numeric characters
-	hyphen
_	underline
/	slash
\$	dollar sign
&	ampersand (only as language code character; see also the section Defining the Language of a Natural Object)
#	hash/number sign
+	plus sign (only allowed as first character)

The first character of the name must be one of the following:

- an upper-case alphabetical character
- #
- +

If the first character is a hash/number (#) sign or a plus (+) sign, the name must consist of at least one additional character.

## Split-Screen Mode

You can use all three Natural editors in split-screen mode: you can use one half of the screen for editing an object and at the same time have another Natural object displayed in the other half. Split-screen mode can be used to display a view, a data area, a Predict program description or a Natural program in the lower half of the screen. In addition, you can include items shown in the display section of the screen into the editing section that is, into the object you are currently editing.

### Example:

The following figure shows the program editor in split-screen mode with the source code of a program in the editing section (upper half) and a local data area in the display section (lower half):

```

>                                     > + Program      SAGDEMO  Lib SAGTEST

Top  ....+....1....+....2....+....3....+....4....+....5....+....6....+....7.
0010 DEFINE DATA LOCAL USING L-INVOIC
0020          LOCAL USING L-INV-LN
0030 END-DEFINE
0040 *
0050 READ INVOICE-VIEW BY INVOICE-NO FROM 1
0060 *
0070   FIND INVOICE-LINE-VIEW WITH INVOICE-NO = INVOICE-NO (0050)
0080   DELETE
0090   END-FINE
0100 *
      ....+....1....+....2....+....3....+....4....+....5....+... S 16  L 1
Split All      Local          L-INVOIC  Library SAGTEST
0010 V 1 INVOICE-VIEW          INVOICE
0020  2 CUST-NO                N      8
0030  2 INVOICE-NO            N      8
0040  2 DATE                   A      8
0050  2 AMOUNT                 N 9.2
0000
0000
0000
0000
    
```

## Split-Screen Commands

The following commands can be used to display and position an object in split-screen mode. All commands begin with an **S** or with **SPLIT** to indicate the working mode - Split Screen. The **SPLIT** command is a cursor-sensitive command as described in the section Program Editor.

Command	Function
S ++	Position to bottom of object.
S B	
S - -	Position to top of object.
S T	
S +	Position one page forwards.
S +P	
S -	Position one page backwards.
S -P	
S + <i>nnn</i>	Position <i>nnn</i> lines forwards (only valid for program editor).
S - <i>nnn</i>	Position <i>nnn</i> lines backwards (only valid for program editor).
S .	Terminate split-screen mode.
S END	
S DATA <i>name</i> [ <i>library</i> ]	Display data area (global, local, parameter).
S DESCRIPTION <i>pgm-name</i> [ <i>library</i> ]	Display program description (if available) from the Predict Data Dictionary (valid for program and data area editor only).
S FUNCTION <i>name</i> [ <i>library</i> ]	Display the subroutine <i>name</i> , where <i>name</i> is the name of the subroutine as used in the DEFINE SUBROUTINE statement (not the name of the object containing the subroutine). This command is only available in the program editor.
S PROGRAM <i>name</i> [ <i>library</i> ]	Display program, subprogram, subroutine, help routine, copycode, text, map, class.
S SCAN [ <i>value</i> ]	Scan for a <i>value</i> . Each line containing the value is marked with a greater than (>) sign. To further scan for the same value, enter S SC only.
S VIEW <i>name</i> [SHORT]	Display view (DDM, as defined in Predict or SYSDDM). If SHORT is specified, the DDM is listed in short form (that is, only the Adabas short names and corresponding Natural field names are displayed) without any field header or field edit mask information.

In the data area editor, with DATA, PROGRAM and VIEW, an asterisk (\*) can be used for *name* to display a list of all available objects. If the asterisk (\*) is preceded by one or more characters, only those objects whose names begin with these characters are displayed.

A *library* can be specified with the program editor only. Under Natural Security, a library cannot be specified.

## Editor Profile

This section covers the following topics:

- General Information
- Additional Options
- Editor Defaults
- General Defaults
- Color Definitions
- Direct Commands
- User Exit USR0070P
- Exit Profile Maintenance

### General Information

When working with the Natural program editor or data area editor, an editor profile can be defined per user.

The editor profile shows the functions assigned to the PF and PA keys, and various other settings to be in effect during the edit session.

The profile can be modified by the users to suit their personal editing requirements.

To display your current profile, enter the command PROFILE in the command line of your program or data area editor. If such a profile does not exist, the default profile SYSTEM is displayed which can be used to create a user's profile. The SYSTEM profile is read from the user exit USR0070P and can be modified there.

To display the profile of another user or the default profile SYSTEM, enter the command PROFILE *profile-name*, where *profile-name* corresponds to the respective user ID.

When you are in an edit session and enter the PROFILE command together with your own user ID as profile name, your profile is always invoked directly from the database; any modifications made during the current session, but not yet saved on the database, will not apply. Therefore, to invoke your current session profile, enter the PROFILE command only.

When you enter the PROFILE command, the following screen is displayed:

```

10:36:42                ***** NATURAL EDITORS *****                2001-01-30
                        - Editor Profile -

Profile Name .. SAG_____

PF and PA Keys
PF1 ... --_____ PF2 ... -H_____ PF3 ... -_____
PF4 ... ++_____ PF5 ... +H_____ PF6 ... +_____
PF7 ... SCAN_____ PF8 ... _____ PF9 ... _____
PF10 .. SC=_____ PF11 .. *CURSOR_____ PF12 .. CANCEL_____
PF13 .. _____ PF14 .. _____ PF15 .. _____
PF16 .. _____ PF17 .. _____ PF18 .. _____
PF19 .. _____ PF20 .. _____ PF21 .. _____
PF22 .. _____ PF23 .. _____ PF24 .. _____
PA1 ... _____ PA2 ... _____ PA3 ... _____

Automatic Functions
Auto Renumber .. Y   Auto Save Numbers .. 10_   Source Save into .. EDITWORK

Additional Options .. N

Command ===>

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---
      Help      Exit  AddOp Save  Flip                                Del  Canc
    
```

**Attention:**

Profile modifications made during the current session are lost when you enter the system command LOGON.

Entry	Explanation
Profile Name	<p>The name of the editor profile. Your own editor profile is displayed. If such a profile does not exist, you can modify the default profile to suit your own requirements. To do so, overwrite the profile name SYSTEM with your user ID and save the renamed profile on the database.</p> <p>If you overwrite the name of your profile with any other valid profile name (that is, any other valid user ID) and press ENTER, the profile of the corresponding user is invoked. Only one profile can be established per user ID, and any modifications made to another user's profile are only valid for the current session; they cannot be saved on the database.</p> <p>You can, however, overwrite the profile name of another user's profile with your own user ID and then save the renamed profile on the database.</p>
PF and PA Keys	<p>The commands assigned to the PF and PA keys are displayed. Any Natural editor or system command can be assigned. Combinations of commands (separated by a comma) are also possible.</p>
Auto Renumber	<p><b>Y</b> indicates that the source code in the program editor is to be renumbered automatically if any of the following occurs:</p> <ul style="list-style-type: none"> <li>● a CATALOG, CHECK, RUN, SAVE or STOW command is issued;</li> <li>● a .I line command is issued and no line number is available for the line to be inserted.</li> </ul> <p><b>Note:</b> See also Renumbering of Source-Code Line Number References.</p>
Auto Save Numbers	<p>If a numeric value is entered, a copy of the source is saved automatically into the member specified in the "Source Save into" field after the specified number of modifications have taken place. Modification means each time that the source has been changed as a result of information entered on the screen.</p> <p>Auto Save Numbers applies to the map editor, too.</p>
Source Save into	<p>The name of the member into which a copy of the source is to be saved automatically; the default name EDITWORK can be modified. The specified member is overwritten each time the number of changes specified in the "Auto Save Numbers" field has been exceeded.</p>

## Additional Options

If you mark Additional Options on the Editor Profile screen with **Y** or press PF4, a window will be displayed from which you can select the following options:

- Editor Defaults
- General Defaults
- Color Definitions

A plus (+) sign in front of an option indicates that some values have already been set in the corresponding window or via an appropriate editor command.

To select an option, you mark it with a **Y**.

For each option selected, a corresponding window will be displayed. The individual items of each window are explained below.

## Editor Defaults

Option	Explanation
Escape Character for Line Command	The escape character which must precede each line command; the default escape character is a period (.).
Empty Line Suppression	<p>Y Any lines left blank are eliminated from the source as soon as you press ENTER.</p> <p>N Any lines left blank are <b>not</b> eliminated from the source when you press ENTER.</p> <p>This parameter only applies to the line command <b>.I</b> (see the sections Program Editor and Data Area Editor).</p>
Source Size Information	<p>Y The actual size of the object being edited and the remaining space available is displayed in the bottom information line of the editor screen. In addition, in the program editor, the programming mode (reporting or structured) is displayed in the top information line of the editor screen.</p> <p>N No such information is displayed.</p>
Source Status Message	<p>Y A transaction message will be displayed in the top information line each time the source is modified, checked, saved, cataloged or stowed.</p> <p>N No such transaction message will be displayed.</p> <p>The Source Status Message parameter only applies to the program editor.</p>
Absolute Mode for SCAN/CHANGE	<p>Y Corresponds to the editor command SET ABS ON.</p> <p>N Corresponds to the editor command SET ABS OFF.</p> <p>See Editor Commands in the sections Program Editor and Data Area Editor.</p>
Range Mode for SCAN/CHANGE	<p>Y Corresponds to the editor command SET RANGE ON.</p> <p>N Corresponds to the editor command SET RANGE OFF.</p> <p>See Editor Commands in the section Program Editor.</p>
Direction Indicator	Indicates the direction (+ or -) in which several editor commands are to work (see also Editor Command Line in the sections Program Editor and Data Area Editor).

## General Defaults

Parameter	Explanation
Editing in Lower Case	<p>Y Lower-case characters in the source code are <b>not</b> automatically converted to upper case (corresponds to the terminal command %L).</p> <p>N Lower-case characters in the source code are automatically converted to upper case (corresponds to the terminal command %U). Automatic conversion is in effect by default.</p>
Dynamic Conversion of Lower Case	<p>This option is relevant only if the above option is set to <b>Y</b>:</p> <p>Y All lower-case characters in the source code are automatically converted to upper case - except text strings that are enclosed in apostrophes and comments: these remain as you enter them (see also the section Program Editor).</p> <p>N Any source code remains as you enter it.</p>
Position of Message Line	Indicates the position of the message line; possible values are <b>TOP</b> , <b>BOT</b> , <i>nn</i> and <i>-nn</i> .
Cursor Position in Command Line	Y Indicates that the cursor is positioned in the edit command line after the source has been modified and you pressed ENTER.
Stay on Current Screen	<p>Y Corresponds to the editor command SET STAY ON.</p> <p>N Corresponds to the editor command SET STAY OFF.</p> <p>See Editor Commands in the sections Program Editor and Data Area Editor.</p>
Prompt Window for Exit Function	Y When you enter the EXIT command in the editor command line, a confirmation window is displayed (see also Exit Function in the sections Program Editor and Data Area Editor).
ISPF Editor as Program Editor	Y Natural ISPF (if installed) is invoked instead of the Natural program editor.

## Color Definitions

If you mark Color Definitions with **Y** in the Additional Options window, the following window will be displayed:

```

+-----COLOUR DEFINITIONS-----+
!
! Edit Work Area                Split Screen Area          !
!   Command Line ..... NE      Label Indicator .... NE    !
!   Label Indicator .... NE     Label Indicator .... NE    !
!   Line Numbers ..... NE      Line Numbers ..... NE     !
!   Editor Lines ..... NE       Editor Lines ..... NE     !
!   Scan and Error Line.. NE     Scan Line ..... NE        !
!   Information Text .... NE     Information Text ... NE    !
!   Information Value ... NE     Information Value .. NE    !
!   Information Line .... NE     !
+-----+

```

In this window you can specify the colors in which the various parts of the edit-work and split-screen area of your program or data area editor are to be displayed.

To get a list of the colors available, you enter the question mark (?) help character in any of the input fields of the Color Definitions window or press PF1 (Help).

Apart from the Command and Information Lines and the corresponding Information Text and Values, the following individual parts can be assigned a specific color:

Label Indicator	Leftmost column of the editor screen; used, for example, to label a source code line on which a certain command has been performed (for example, the <b>.X</b> and <b>.Y</b> line commands).
Line Numbers	Column of the source code line numbers (program editor only).
Editor Lines	Lines of source code currently in the edit-work and/or split-screen area.
Scan and Error Line	All lines marked with an <b>S</b> (or a greater than (>) sign in split-screen mode) as a result of a scan operation, any line where an error was detected (marked with <b>E</b> and applicable in edit-work area of program editor only) and the error message line itself.

## Direct Commands

The following direct commands can be used instead of the corresponding PF keys. Direct commands have to be entered in the command line at the bottom of the editor profile screen.

Command	Description
CANCEL	This command (or PF12) cancels the current function and returns you to the screen from which it was invoked. Any modifications made to the profile have no effect for the current session.
DELETE	This command (or PF11) deletes the current profile from the database. Before the profile is deleted, however, a confirmation window pops up, in which you can either type the name of the profile and press ENTER to confirm the deletion of the profile, or press ENTER only to exit the function.
EXIT	This command (or PF3) invokes the exit function prompt window, regardless of whether the corresponding editor default parameter (see General Defaults) is set or not.
FLIP	This command (or PF6 and PF18) is used to switch between the two PF-key lines.
REFRESH	This command (or PF13) displays the profile parameters currently valid for the session, which means that any modifications made so far, but not yet saved, are overwritten.
SAVE	This command (or PF5) saves all currently valid profile parameters both for the current session and on the database. However, it does <b>not</b> leave the current function.

## User Exit USR0070P

The user exit routine USR0070P enables you to modify the parameter settings in the default profile SYSTEM. USR0070P provides a list of all parameters which are to receive a default setting.

With this user exit, you can also determine whether editor profiles are to be stored in the FNAT system file, the FUSER system file or the scratch-pad file.

## Exit Profile Maintenance

To exit from any editor profile maintenance function, press PF3 (Exit) or enter the EXIT command in the command line at the bottom of your terminal screen. In both cases the EXIT Function prompt window is invoked offering you the following options:

Function	Explanation
Save and Exit	Returns you to the screen from where the current profile maintenance function was invoked and saves any modifications made to the current profile. Modifications are saved both for the current session and on the database. If you are working with another user's editor profile, however, modifications made to that profile cannot be saved on the database. They are valid for the current session only; a corresponding message is returned.
Exit without Saving	Returns you to the screen from where the current profile maintenance function was invoked. Any modifications made to the current profile are only valid for the current session; they are <b>not</b> saved on the database.  Pressing ENTER corresponds to "Exit without Saving".
Resume Function	Closes the prompt window and returns you to the current profile maintenance function.